

PLANTERS AND SEEDERS

Some of the Essential Things About Good Corn and Cotton Planters, With Suggestions for Operating Successfully—Fertilizer Attachments for Planters

By E. F. Cauthen

A GOOD planter or seeder should be simple in construction, durable and serviceable. In addition to these qualities, it should be easy to operate, capable of easy adjustment, and do its work accurately.

Corn Planters

CORN planters may be divided into two classes: those made to drop the seed in checks and those to drop the seed in drills. In late years the method of planting corn in checks is not very extensively employed in Southern states, because the land is rolling and cross cultivation encourages washing of the soil, but in those sections of the country where cross-cultivation is practised, both single and double check-row planters (see figure 2) are used.

The dropping mechanism of the corn planter consists of a revolving disk or plate with a circle of cells near (see figure 1) its rim or cut in the edge and a brush cut off (see figure 3). As the plate passes under the seed box, the cell is filled with kernels; as it passes out under the cut-off brush, all kernels that do not fit in the cell are raked off.

The planter using the edge cell plates seems better adapted to ungraded corn. Each planter should be provided with three sizes of corn plates so that the machine may be adjusted to plant large or small kernel varieties.

The dropping of kernels in check hills is done by means of a check wire (see figure 2) or by chain and sprocket worked by clutches. With the use of the wire the plates move intermittently producing a shock that fills the cells evenly and gives a more uniform stand of plants.

The planting furrow is made with a shoe opener (see it in front of wheels in figure 2) or disk. The shoe opener is more often used and seems better adapted to general farm conditions; it penetrates the soil and makes it easy to hold the machine in line. The opener is set to give uniform depth of seed furrow.

The seed are covered by means of open or solid tire wheels, (see on planter in figure 2), blade shares, or drags. They cover the seed to the same depth, and at the same time slightly pack the soil on them to give prompt germination.

The one-row corn drill meets the needs of the average farmer in the Cotton Belt. It is inexpensive, easy to handle, and is drawn by one horse. In addition to the regular corn plates, the planter should be provided with plates for beans, sorghum, peas, etc.

Cotton Planters

THERE are numerous forms of cotton planters now made. The old type that required a bushel or more seed to plant an acre is no longer desirable except in rare cases. With the high price of seed now prevailing and the expense of "chopping cotton" entailed by thick planting, the need of a dropping or a thin sowing planter is more keenly felt.

However, the grower of cotton should not lose sight of the importance of a good stand of plants. Under weevil conditions, the planting must be made early, and to secure a stand from an early planting it may be necessary to sacrifice a great many seed.

The type that sows seed has a seed box mounted on a frame, an opening in the bottom through which the seed fall and some form of an agitator to press the seed out in a constant stream. The seed fall in an open furrow made by a drill plow and are covered with a board drag. All these operations are performed at one trip on the row.

The one-seed planter has a revolving disk in the bottom of the seed

box and an agitator to keep the seed pressed down on the disk. This type of planter has never proved very satisfactory, because one seed dropped in a hill usually gives a poor stand of plants.

The type of planter shown in figure 5 has given general satisfaction. It is compact and strong and easy to operate.

The seed are dropped by means of revolving plates very similar to those used in corn planters. It has a feed that gives any required quantity of seed; the seed are kept in a steady stream by an agitator that keeps them pressed to the feeder. The drill furrow is made with a V-shaped shoe and follows a coulter-like scooter that pulls out all trash and holds the machine steady on the bed. Short wing-like arms project on each side of the foot and knock off clods, trash, and the top of the bed, leaving it fresh and clean. The beam is not fixed but works on a hinge to give free motion to the machine. The seed are covered

hill is regulated by the length of the fingers. The drill furrow is opened with a small scooter plow, or V-shaped shoe, attached to the frame; the seed are covered with a pair of metal shares (in front of packer wheel, see figure 4) or a metal drag. The distance between the hills is regulated by the number of fingers on the disk, and by the use of different sized sprocket wheels.

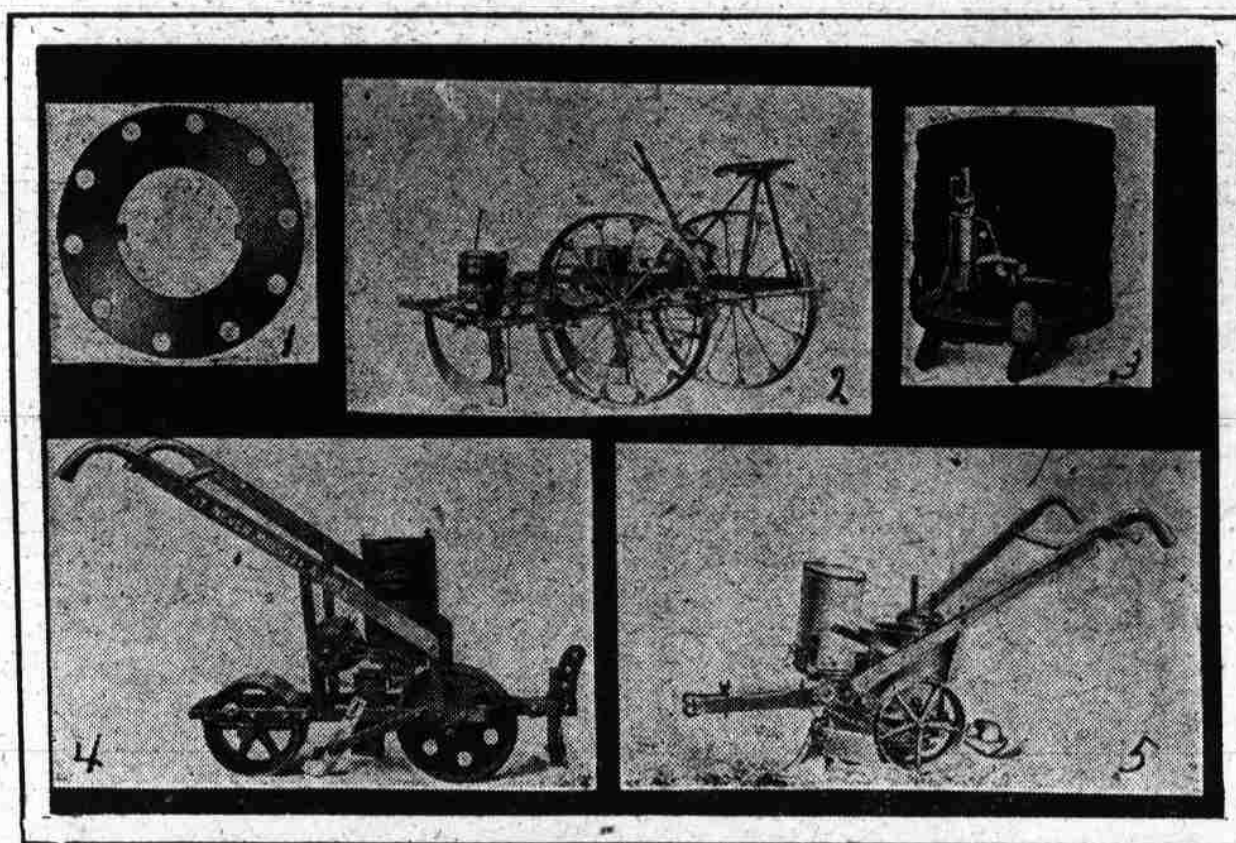
This machine drops the seed not in a wad but slightly scattering them. When the plants come they are not crowded together and are more easily thinned.

This planter is easily changed to one that sows the seed. It is also provided with plates for corn, sorghum, peas, beans, and oats.

Fertilizer Attachments

ALL the modern makes of seeders have fertilizer attachments to go with the machine, if the buyer wishes them. These are usually placed in front of the seed box on the frame, and are detachable.

The fertilizer is sowed in a constant stream. A rotating disk in the bottom of the dropper feeds it out into a spout that conducts it to the ground. Within the hopper is an agitator to keep the flow steady. Most



TYPES OF PLANTERS

Figure 1 is a corn plate showing cells near its rim. Figure 2 shows a two-row check planter. Figure 3 is a seed box showing a plate and cut-off brush. Figure 4 is a cotton seed dropper or sower. Figure 5 is another type of a cotton planter. The front box is for fertilizer.

with a drag that packs the dirt slightly on them.

The knocking off of the clods and the making of the surface of the bed fresh, the drilling, dropping, and covering of the seed—are all performed at one operation. When the seed are planted at a uniform depth and in fresh soil, conditions for prompt germination are secured.

Figure 4 shows another type of planter that drops in hills or sows the seed. The seed box has a narrow perpendicular slot in one side and in front of this slot revolves a disk that has two, three or four projecting fingers. These fingers reach through the slot into the seed box and pull out the seed for a hill, dropping them down through a short spout into the drill. The seed are fed into reach of the fingers by a revolving agitator in the bottom of the box. The amount of seed for each

machine have a gauge to regulate the flow, and the rate of distribution per acre is marked on the gauge. However the rate of sowing depends on the kind of fertilizer and the operator should test his machine if he wishes to distribute a given amount per acre.

Care of Seeders

A PLANTER, like any other piece of machinery, should receive due care. The bearings require oil, the nuts must be kept tight, and an occasional coat of paint will add to the length of its life. When it is not in use, keep it in a dry tool room or shed and do not leave it in the field from one season to another. All the disks or plates after they have been used should have a thin coat of axle grease rubbed on them to prevent a coat of rust from forming on the surface. If they are

GET A HYDRAULIC RAM

IHAVE recently installed a hydraulic ram below a spring 200 yards from my house. The flow from this spring is only two gallons per minute and my fall is about seven feet from spring to ram. The lift from ram to tank is 65 feet. The stream of water to the house is very small, but this stream counts like interest on money loaned out—it is working night and day. I have ample water for kitchen, bath-room, and bedrooms, both hot and cold. The tank overflows nearly every night, and I run this overflow to trough in lot for stock. My only regret is that my supply of water is not greater so I could use a larger ram and get ample water for both house and stock.

My ram and equipment cost me around \$100. I consider that the money invested is drawing me at least 25 per cent dividend, and any man who lives near flowing water and has \$100 in the bank and does not install a ram is losing a great opportunity and a big interest on his money.

Littleton, N. C.

J. P. LEACH.

allowed to become rusty, this rust interferes with their prompt working the next time that they are used.

THE PEANUT PICKER

Difficulty in Harvesting, Once a Limiting Factor in Peanut Production, Has Been Eliminated by the Successful Peanut Picker

AT THE beginning of the Twentieth Century, when the growing of peanuts commercially in the United States began to assume some proportions and to attract some attention in the industrial world, it was a common sight to see dozens of Negroes grouped around a fire in the peanut fields picking the nuts off of the vines. Whole families, including the baby, who was often huddled up in a box at one side, were present, and while some "picked" others "roasted peanuts" in the fire-coals and ate. This process began as early as the nuts were dry enough to take from the vines and often continued through the entire winter.

As the acreage devoted to peanut growing increased, the many objections to hand-picking become more apparent. The delay in getting the crop harvested, leaving them in the field, exposed to the depredations of birds, forced many farmers to build large sheds or shelters under which to stow the stalks until the hands could pick them. The danger from fire was increased by the natural propensity of the Negro to wait a fire while picking the peas, and often the severity of the weather made fire necessary. There was an enormous destruction by rats when stowed away in these sheds. The anxiety and tedium of having to weigh up these small lots at night, and the settlement with the large number of hands, were something terrific. In addition to all this was the ease with which small sacks of peanuts could be taken on home at night, and frequently a farmers' crop yielded much less than the growth of the vines and nuts would indicate.

The writer remembers very distinctly the efforts of his nearest neighbor toward making a machine which would pull the nuts off of the vines and not crack the hulls. His first attempt, as remembered, was made of two wooden frames about three feet wide and six or eight feet long. These frames were each covered with diamond-shaped mesh wire netting, the meshes about one inch across—the narrow way. The vines, after they were dry, were placed upon the top frames, and as it was moved back and forth by hand upon the lower stationary frame the nuts, which hung through were pulled off and dropped into a receptacle. He had struck upon the right principle, and he has continued to develop this same principle until he is recognized as the inventor of the most successful peanut picker upon the market today—a large well constructed machine, operated by steam power, which will pick from 400 to 600 bushels of peanuts per day, remove the stems and pops or unfilled hulls as they pass before the fan, and leave the vines in excellent condition for hay.

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T. E. BROWNE.

Coming Farmers' Meetings

Farmers' Short Course, Blacksburg, Va., February 1 to 28.
Farmers' Short Course, West Raleigh, N. C., January 16 to February 14.
Farmers' Short Course, College of Agriculture, University of Tennessee, Knoxville, January 1 to February 10.

"I tell you," said Pat, "the old frind is the best, after all and, what's more, I can prove it."
"How are you goin' to prove it?"
"Where will you find a new frind that has staid by ye as long as the old ones have?"
—Last Word.